

DIALOG(R)File 352:Derwent WPI

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0007164980 - Drawing available

WPI ACC NO: 1995-203987/

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**Non-gel forming resin compsn, for avoiding increase of viscosity -  
comprises ethylene@!-vinyl! acetate copolymer, terminal-modified aliphatic  
polyamide, hindered phenolic cpd. and alkaline earth metal salt**

Patent Assignee: NIPPON SYNTHETIC CHEM IND CO (NISY)

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**Patent Family** (2 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
JP 7118469	A	19950509	JP 1993286123	A	19931019	199527 B
JP 3440123	B2	20030825	JP 1993286123	A	19931019	200357 E

Priority Applications (no., kind, date): JP 1993286123 A 19931019

**Patent Details**

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 7118469	A	JA	9	0	
JP 3440123	B2	JA	8		Previously issued patent JP 07118469

**Alerting Abstract JP A**

The resin compsns consists of:

(A) a saponified ethylene-vinyl acetate copolymer having an ethylene content of 20 to 60 mol% and a vinyl acetate unit saponification degree of 90 mol% or higher, (B) a terminal-modified aliphatic polyamide which consists mainly of caproamide structural unit, has a methylene gp/amide gp ratio (CH<sub>2</sub>/NHCO) of  $\geq 5.20$  and  $\leq 6.50$  and is adjusted with a terminal adjuster so that to have a terminal amide gp content may be lower than (terminal carboxyl gp content (milli equiv/g polymer), (C) a hindered phenolic cpd, (D) an alkaline earth metal salt of aliphatic carboxylic acid, and (E) at least one cpd selected from among ethylene-bis fatty acid amide, higher fatty acid metal salt, high molecular ester, fatty acid ester, fatty acid ester and hydrocarbon cpd.

(A) and (B) are contained in a ratio of 70:30 to 96:4 by weight and (C), (D) and (E) are contained in 0.01 to 1 wt%, 0.5 to 15 millimol/g in terms of metal and 0.01 to 1 wt% respectively of total of (A) and (B). (E) is selected from among 16-18C ethylene bis-fatty acid amide, zinc stearate, calcium stearate, magnesium stearate and low molecular polyolefin having a molecular weight of 900 to 3,000 as measured by viscosity method.

Also claimed is a co-extruded laminate which has an interlayer consisting of the resin compsn and has a polyamide resin outer layer on one or both sides.

The polyamide resin is a blend of nylon 6 with a non-crystalline polyamide.

The co-extruded laminate is a packaging material which can be retort or boil sterilised.

ADVANTAGE - The resin compsn does not cause formation of gel nor increase of viscosity with time even when co-extruded with polyamide resin.

**Title Terms** /Index Terms/Additional Words: NON; GEL; FORMING; RESIN; COMPOSITION; AVOID; INCREASE; VISCOSITY; COMPRISE; POLYETHYLENE; POLYVINYL; ACETATE; COPOLYMER; TERMINAL; MODIFIED; ALIPHATIC; POLYAMIDE; HINDERED; PHENOLIC; COMPOUND; ALKALINE; EARTH; METAL; SALT; SAPONIFIED

#### **Class Codes**

International Classification (Main): C08L-023/26

(Additional/Secondary): B29C-047/06, B29K-023/00, B29K-077/00, B29L-009/00 , B32B-027/28, B32B-027/32, B65B-055/04, C08K-005/098, C08K-005/11, C08K-005/13, C08K-005/20, C08L-029/04, C08L-077/00, C08L-077/00

File Segment: CPI; EngPI

DWPI Class: A17; A23; E19; P73; Q31

Manual Codes (CPI/A-M): A05-F03; A10-E09; A11-B07; A12-P01; E05-B01; E05-L03C; E10-C04L2; E10-D03A; E10-G02A2; E10-J02D

#### **Chemical Indexing**

Chemical Fragment Codes (M3):

\*01\* M903 M782 Q130 R043 R045 9527-C7801-M

\*02\* M903 A100 A200 A204 A212 A220 A238 A256 A300 A313 A400 A430 A500 A600  
A700 A800 A960 C710 M411 M630 M782 Q130 R043 R045 9527-C7802-M

\*03\* M903 M782 Q130 R043 R045 9527-C7803-M

\*04\* M903 M782 Q130 R043 R045 9527-C7804-M

\*05\* M903 M782 Q130 R043 R045 9527-C7805-M

Specific Compound Numbers: R00326; R00835; R01377; R01563; R01376; R01377;  
R01563; R01376

Generic (Markush) Compound Numbers: 9527-C7801-M; 9527-C7802-M;  
9527-C7803-M; 9527-C7804-M; 9527-C7805-M

Derwent Chemistry Resource Numbers: (Linked) 1013-DIS; 1092-DIS; 110857-DIS  
; 829-DIS; 89851-DIS; 1013; 829; 110857; 89851; 1092; 110857; 89851; 1092

### **Key Word Indexing**

\*1\* 1013-DIS 1092-DIS 110857-DIS 829-DIS 89851-DIS

### **Polymer Indexing**

<01>

\*001\* 017; G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D82 R00326-R  
1013-R; G0566 G0022 D01 D11 D10 D12 D51 D53 D58 D63 D84 F41

R00835-R

829-R; H0022 H0011; P1321 P1694; M9999 M2313; P1150; P1310

\*002\* 017; D10-R; P0635-R F70 D01; P0646 P0635 F70 D01 D11 D10 D50 D86;  
M9999 M2153-R

\*003\* 017; ND01; K9574 K9483; K9698 K9676; Q9999 Q7818-R; Q9999 Q8366-R;  
B9999 B4682 B4568; B9999 B3554-R; N9999 N5981 N5970

\*004\* 017; K9745-R; Q9999 Q9154

\*005\* 017; D01 D10-R D11 D10 D95 F70; D01 D11 D10 D50 D61 D95 F36 F35 Zn  
2B

Tr R01377-R 110857-R; D01 D11 D10 D50 D61 D95 F36 F35 Ca 2A R01563-R  
89851-R; D01 D11 D10 D50 D61 D95 F36 F35 Mg 2A R01376-R 1092-R; A999  
A340-R

\*006\* 017; D01 D10-R D61-R F35-R Gm; A999 A340-R

\*007\* 017; D01 D10-R D63 F41; A999 A340-R

\*008\* 017; D01 D10-R D61-R F35-R 2A-R; A999 A340-R

\*009\* 017; D01 D18-R; A999 A486-R

<02>

\*001\* 017; P0635-R F70 D01; M9999 M2153-R

\*002\* 017; B9999 B4784 B4773 B4740

\*003\* 017; ND01; K9574 K9483; K9698 K9676; Q9999 Q7818-R; Q9999 Q8366-R;  
B9999 B4682 B4568; B9999 B3554-R; N9999 N5981 N5970

\*004\* 017; K9745-R; Q9999 Q9154

\*005\* 017; D01 D10-R D11 D10 D95 F70; D01 D11 D10 D50 D61 D95 F36 F35 Zn  
2B

Tr R01377-R 110857-R; D01 D11 D10 D50 D61 D95 F36 F35 Ca 2A R01563-R  
89851-R; D01 D11 D10 D50 D61 D95 F36 F35 Mg 2A R01376-R 1092-R; A999  
A340-R

\*006\* 017; D01 D10-R D61-R F35-R Gm; A999 A340-R

\*007\* 017; D01 D10-R D63 F41; A999 A340-R

\*008\* 017; D01 D10-R D61-R F35-R 2A-R; A999 A340-R

\*009\* 017; D01 D18-R; A999 A486-R

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\*001\* 017; P0635-R F70 D01

\*002\* 017; K9712 K9676

\*003\* 017; ND01; K9574 K9483; K9698 K9676; Q9999 Q7818-R; Q9999 Q8366-R;  
B9999 B4682 B4568; B9999 B3554-R; N9999 N5981 N5970

<04>

\*001\* 017; G0033-R G0022 D01 D02 D51 D53; H0000; H0011-R; A999 A782; A999  
A340-R; P1150

\*002\* 017; B9999 B5094 B4977 B4740; N9999 N6382-R

**Original Publication Data by Authority**

**Japan**

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Publication Date: 19950509

**\*\*ETHYLENE-VINYL ACETATE COPOLYMER SAPONIFIED SUBSTANCE-BASED  
RESIN**

**COMPOSITION CO-EXTRUDED LAMINATE CONTAINING LAYER OF THE SAME\*\***

Assignee: NIPPON SYNTHETIC CHEM IND CO LTD:THE (NISY)

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JP07-118469

SHIBUYA MITSUO

Language: JA (9 pages, 0 drawings)

Application: JP 1993286123 A 19931019 (Local application)

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C08K-5/13(B) C08K-5/20(B) C08L-29/04(B) C08L-77/00(B) B29K-23:00(Z)  
B29K-77:00(Z) B29L-9:00(Z)

Current IPC: C08L-23/26(A) B29C-47/06(B) C08K-5/098(B) C08K-5/11(B)  
C08K-5/13(B) C08K-5/20(B) C08L-29/04(B) C08L-77/00(B) B29K-23:00(Z)  
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C08K-5/098(B) C08K-5/13(B) C08L-29/04(B) C08L-23/26(C) C08L-77:00(C)  
C08L-29/04(D) C08L-77:00(D)

Current IPC: C08L-23/26(A) B32B-27/28(B) B32B-27/32(B) B65B-55/04(B)  
C08K-5/098(B) C08K-5/13(B) C08L-29/04(B) C08L-23/26(C) C08L-77:00(C)  
C08L-29/04(D) C08L-77:00(D)

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